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36. REDISCOVERY OF *STREPTOCAULON SYLVESTRE* WIGHT - AN ENDANGERED AND LITTLE KNOWN ENDEMIC PLANT OF EASTERN INDIA

(*With a text-figure*)

Streptocaulon sylvestre Wight (Asclepiadaceae) is a small suffrutescent prostrate plant, originally collected by Hamilton (Ham. Herb. No. 763) from Sannyasikata (not *Sanaashygota* as in Wight 1834) in the district of Jalpaiguri (West Bengal, India) on 7th of April 1809 and doubtfully thought to be a species of *Periploca*. Later Wight (1834) named it as *Streptocaulon sylvestre*. Wallich recorded the specimen in his catalogue of dried specimens in 1847 (Wall. Cat. No. 8251), with no duplicate.

S. sylvestre is a very rare plant and is reported to grow only in the foothill regions (Terai) of Eastern Himalaya, namely Siliguri (in West Bengal) and foothills of Sikkim Himalayas (Hooker 1883, Prain 1903). Apart from the Type (Ham. Herb. no. 763 in CAL) only few specimens were located at CAL: C.B. Clark 11656 (2 sheets), Siliguree (= Siliguri), May 27, 1870; C.B. Clark 11707, Purnea, May 24, 1870; C. B. Clark 26455 (2 sheets), Siliguree, May 31, 1875; Ribu and Shomoo 3790, Titalya (Terai plains), March 4, 1910. No other specimen was found in any other Indian Herbaria. However, no material from Sikkim was seen.

It now appears that the species is endemic to the Terai region of Bihar and West Bengal (Sikkim?) in India. So far, only two floras, the *Flora of British India* (Hooker 1883) and *Bengal Plants* (Prain 1903, using same specimen), have recorded the species. Hara and his co-workers (Hara 1966, 1971; Ohashi 1975; Hara *et al.* 1978, 1979, 1982) floristically explored the adjoining regions of its places of original distribution but have not recorded the plant.

Quite a few plants are now found growing in a field with savannah type of vegetation with thick grass cover within the campus of the University of North Bengal. This grassland is free from grazing and is dominated by *Cymbopogon pendulus* (Nees ex Steudel) W. Weston, *Saccharum spontaneum* L. and *Imperata cylindrica* (L.) Beauv. and attains a height of over 2 m in flowering season of the first species (i.e. September to January). However, mowing of grasses for fodder is a common practice.

Search has been made in the regions adjoining the University campus, at some places in Purnea, the Type locality, i.e. at Sannyasikata, and in a wide area of the Terai during the last four years but with no success. Large scale modification of these areas during the last two centuries for dwelling and cultivation (as for the rapid expansion of Siliguri Municipality), the manifold increase in grazing, probably led to the elimination of the species from these areas. The strictly prostrate habit of the plant with slightly woody but easily breakable stem, which never produces any adventitious root (from nodes and/or internodes) but always grows under grasses renders the species highly unsuitable for a rangeland flora.

No detailed description, specially of its fruits and seeds, as well as a drawing, is available in the existing literature. These are given here to facilitate further exploration of the species.

Streptocaulon sylvestre Wight, Contrib. Ind. Bot. 65 (1834): Fl. Brit. Ind. 4:10 (1883); Beng. Pl. 2:509 (1903). (Fig. 1)

A suffrutescent strictly procumbent herb with

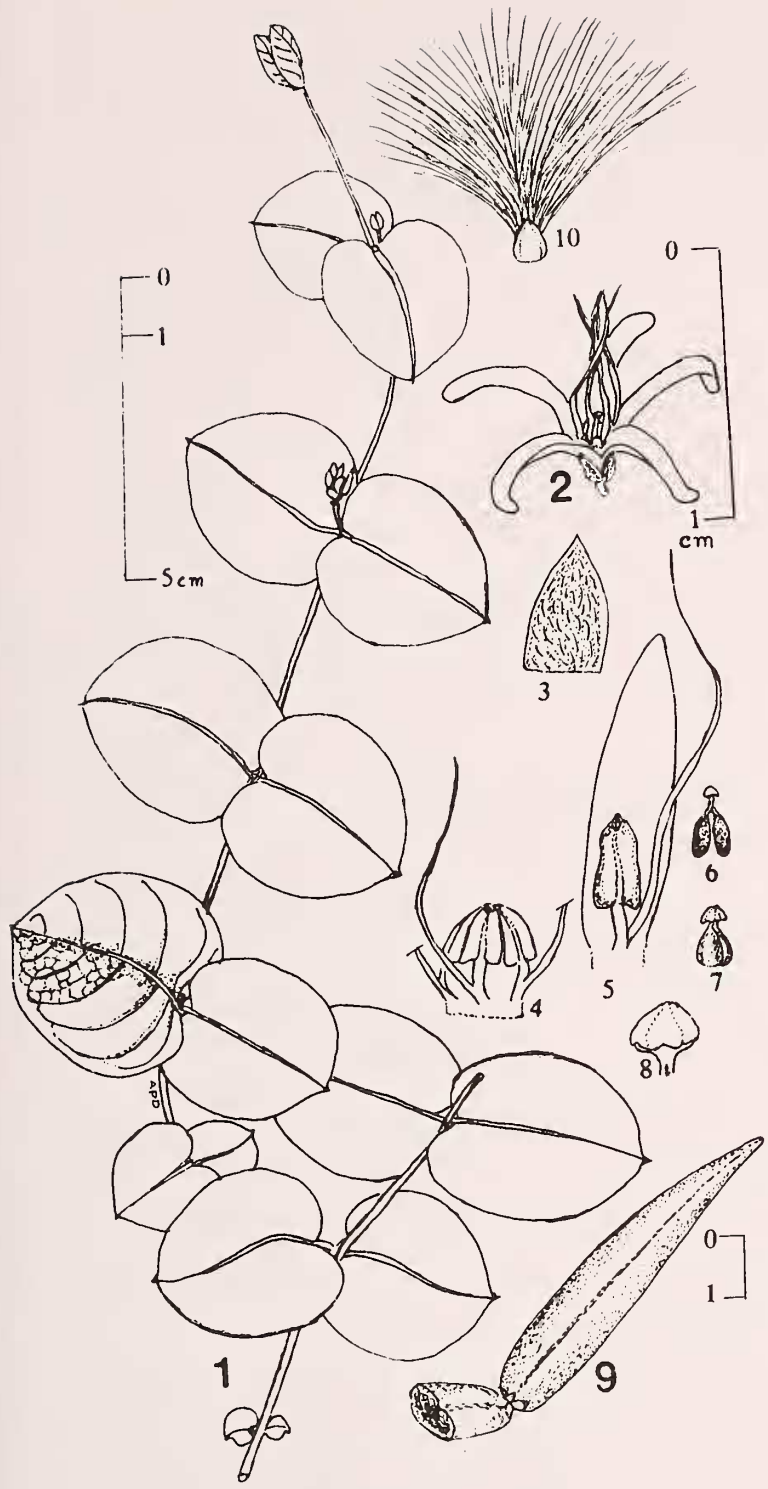

Fig. 1. *Streptocaulon sylvestre* Wight
1. A twig; 2. Flower; 3. A sepal; 4. Androecium; 5. A stamen on a petal; 6. Bipollinium; 7. Pistil; 8. Stigma; 9. Pair of follicles; 10. Seed with coma.

milky latex, never rooting from branches; stem terete, *c.* 0.13 cm in diameter, shortly tomentose. Leaves opposite, with 0.3-0.4 cm long petiole; lamina (4-6.3 x 3.8 - 5.7 cm) ovate to rounded-ovate, entire, apiculate, shortly cordate-auriculate, leathery, shortly hispid below, minutely pubescent above; 5-veined from base, midvein strong, 5-7 nerved laterally, all veins elevated below. Bracts linear-subulate, 0.15 - 0.22 cm long, hairy. Flowers in axillary, shortly peduncled (0.5 - 0.8 cm), 1-9 flowered cymes, shortly pedicellate (0.5 - 1.1 cm), actinomorphic, hypogynous, bisexual, 1-1.2 cm in diameter. Sepals 5, 0.2-0.25 x 0.08-0.09 cm, connate only at base, broadly ovate, entire, acute, hairy, quincuncial, brownish-purple, alternating with linear glands at base, slightly enlarged in fruit. Corolla rotate with a very short (0.1 cm) greenish - white tube; lobes 5, 0.7-0.8 x 0.15 cm, linear oblong, obtuse, twisted to the right, curved downward after opening, deep purple. Stamens 5, inserted on the base of corolla, antipetalous; filaments short (0.04 - 0.1 cm), flattened, white, alternating with minute teeth; anthers flattened, 0.1 - 0.11 cm, oblong, bithecal, base slightly sagittate, with a short triangular corona, connivent and attached near the tip of stigma; pollen masses 2 in each cell, linear, attached to a slender and short corpuscle, tip dialated; corona produced from the base of filament, slender whip-like, 0.6-0.65 cm long, deep brown at base, white above, tips do not coil. Carpels 2, united little below the stigma; ovaries 2, oblong, 0.7 - 0.75 cm long, hairy, 1-chambered each, ovules numerous, inserted on marginal placenta; style short; stigma conical, cap-like margin 5-lobed, each lobe cordate, obscurely 2-lobed at tip. One of the pair of follicles generally does not develop but becomes equal if it grows, terete with a longitudinal ventral furrow, conical from middle to tip, or lower 3/5 oblong and conical above, smooth walled, minutely villous, 3.8 - 8.8 x 1-1.3 cm, dehiscent; seeds (0.6 - 0.85 x 0.4) numerous, ovate-oblong to ovate, flat, reddish brown; hairs of coma 1 - 4.4 cm long, white.

Specimen cited: *A.P. DAS 1917*, North Bengal University campus, September 16, 1990 (Herbarium NBU).

It is now clear that this endemic species (for Terai of West Bengal and Bihar) with beautiful foliage and deep purple flowers is now extremely endangered. Further extention programme of the University may, any day, eliminate the

species from its last known natural habitat. However, quite a few plants are now growing well in pots and on the ground inside the Medicinal and Rare Plants Garden and Padmaja Naidu Park of the University. Some seeds have been collected for germination studies and for further propagation.

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37. PRESENCE OF WILD PLANTAIN (*ENSETE SUPERBUM*) IN RAJASTHAN

In the Flora of Rajasthan, Vols. I, II & III; Shetty and Singh (1987, 1991, 1993) have recorded only, *Musa paradisiaca* Linn. as a representative plant of family Musaceae from the State of Rajasthan. During my field visits since 1986 in forest areas of Jhadol, Kotra, Mamer and Ogna Forest Ranges of Southern Aravallis in Udaipur district, I have observed wild plantain (*Ensete superbum*) growing in different Reserve Forests as given in Table 1.

TABLE 1
DISTRIBUTION OF *E. superbum* IN RAJASTHAN

Name of Forest	Forest Range	Forest Div.	Approx. no. of plants observed
1. Daiya-Ambasa	Mamer	Udaipur (W.L.)	20
2. Kamalnath	Jhadol	Udaipur (S)	5
3. Madri	Jhadol	Udaipur (S)	1
4. Nal Sandol	Jhadol	Udaipur (S)	100
5. Phulwari-ki-Nal	Kotra	Udaipur (W.L.)	30
6. Ramkunda	Ogna	Udaipur (S)	70

Invariably it occurs on inaccessible crags and is patchily distributed in forest areas. At Na Sandol Reserve Forest, it grows in crevices of bare rocks in association with *Euphorbia caducifolia.* The *E. superbum* is mainly distributed in the western part of South India which has a high rainfall area while it grows in Rajasthan, in the 600-800 mm rainfall zone. At the commencement of the monsoon rains it produces new leaves from its perennial underground parts and becomes dry in October-November. It has a swollen pseudostem base and is monocarpic, rarely suckering.

This plant is familiarly known to the Bhils (local tribals) as "Magra ko kelo" or "Magra kel", i.e. banana of the hills. It is used in some ethnomedicines also. Sap of leaves of this plant is given to cure infertility among women. This plant is useful from the ethnometeorological point of view also. New sproutings of this plant is taken as an indication of commencement of monsoon rains by local tribals and preparation for sowing of Kharif crop is made accordingly.